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Lockheed Analytical Services 975 Kelly Johnson Drive Las Vegas, Nevada 89119-3705 Phone: (702) 361-0220 Phone: (800) 582-7605 Fax: (702) 361-8146

April 28, 1995

Ms. Joan Kessner Bechtel Hanford, Inc. 345 Hills P.O. Box 969 Richland, WA 99352

RE:

Log-in No.:

Quotation No.:

SAF:

Document File No.:

WHC Document File No.:

SDG No.:

L4255 Q400000-B B95-053 0413596 209 LK4255



The attached data report contains the analytical results of samples that were submitted to Lockheed Analytical Services on 13 April 1995.

The temperature of the cooler upon receipt was 2°C. Sample containers received agree with the chain-of-custody documentation. Sample containers were received intact. Samples were not received in time to meet the analytical holding time requirements. All discrepancies identified upon receipt of the samples have been forwarded to the client and are documented in the enclosed chain-of-custody records.

The case narratives included in the following attachments provide a detailed description of all events that occurred during sample preparation, analysis, and data review specific to the samples and analytical methods requested.

A list of data qualifiers, chain-of-custody forms, sample receiving checklist, and log-in report are also enclosed representing the samples received within this group.

If you have any questions concerning the analysis or the data please call Kathleen Hall at (509) 943-4423.

Lockheed Analytical Services

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Release of this data report has been authorized by the Laboratory Director or the Director's designee as evidenced by the following signature.

" I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manger or a designee, as verified by the following signature."

Sincerely

Client Services Representative

cc: Client Services

Document Control

Lockheed Analytical Services

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CASE NARRATIVE INORGANIC NON METALS ANALYSES

The routine calibration and quality control analyses performed for this batch include as applicable: instrument tune (ICP/MS only), initial and continuing calibration verification, initial and continuing calibration blanks, method blank(s), laboratory control sample(s), ICP interference check samples (ICP only), serial dilutions, analytical (post-digestion) spike samples, matrix spike (predigestion) sample(s), duplicate sample(s).

Preparation and Analysis Requirements

 One water sample was received on April 13, 1995 for L4255, prepared as Batch 413bh and analyzed for selected analytes as requested on the chain of custody.
 Quality control analysis was performed on the following sample:

Client ID	LAL#		Method
BOD931	L4255-3	MS, DUP	7196 Hexavalent Chromium

Holding Time Requirements

The sample for 7196 Hexavalent Chromium analyses was received out of holding time and the applicable sample is flagged with an "H".

Method Blanks

 The concentration levels of all the requested analytes in the method blank were below the reporting detection limits.

Internal Quality Control

•	All Internal	Quality	Control	were	within	acceptance	limits.
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Lockheed Analytical Services

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CASE NARRATIVE INORGANIC METALS ANALYSES

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Holding Times-

All samples were analyzed within the method-specific holding times.

Method Blanks-

The method blanks were free of contamination.

Internal Quality Control-

All Internal Quality Control were within acceptance limits with the following exception: The matrix spike recovery for chromium (74%) was slightly outside of the $\pm 25\%$ acceptance limits. The recovery based on the LCS (100%) supports that the analytical system was operating within control limits.

Shellee McGrath Prepared By April 27, 1995 Date

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SAMPLE STATUS REPORT FOR N 3894. RAD SCREEN BOD929 TIME: 4/12/95 8:49

DISPATCHED: 11/16/94 15: 0 RECEIVED: 4/11/95 15:25 SAMPLE HAS NOT BEEN SLURPED

OUT OF GOOD CHARGE EXT. DETER. RESULTS OR STATUS RANGE? ANS? CODE **** ************************* ****** *** 4271 TOT-ACT < 5.00000E 01 pCi/G Y PE35A

END OF REPORT

WHC/BHI SAMPLE CHECK-IN LIST

L4255

Work Order Number: Chain of Custody #	Date	e/Time Received: 4-13-45 0845	_SDG	#:	<u> </u>			•	•
1. Custody Seals on shipping container intact? Yes M No [] 2. Custody Seals dated and signed? Yes M No [] 3. Chain-of-Custody record present? Yes M No [] 4. Cooler temperature	Work	Order Number:	SAF	#:				•:	
2. Custody Seals dated and signed? 3. Chain-of-Custody record present? Yes No [] 4. Cooler temperature 2. C 5. Vermiculite/packing materials is Wet [] Dry [] 6. Number of samples in shipping container: 7. Sample holding times exceeded: Yes [] No [] 8. Samples have: tape hazard labels custody seals appropriate sample labels 9. Samples are: in good condition leaking have air bubbles 10. Were any anomalies identified in sample receipt? Yes [] No [] 11. Description of anomalies (include sample numbers): Sample Custodian: Con: 44 Con.	Ship	oping Container ID:Cha	in of	Cust	ody #	<u> </u>		· ' · · · ·	
3. Chain-of-Custody record present? Yes No [] 4. Cooler temperature	1.	Custody Seals on shipping container	inta	ct?	Yes	M	Мо	[]	
4. Cooler temperature	2.	Custody Seals dated and signed?		Yes	M	ЙО	[]	•	
5. Vermiculite/packing materials is Wet [] Dry [] 6. Number of samples in shipping container: 7. Sample holding times exceeded: Yes [] No [] 8. Samples have:	з.	Chain-of-Custody record present?	Yes	M	No	[]			
6. Number of samples in shipping container: 7. Sample holding times exceeded: Yes [.] No [] 8. Samples have: tape hazard labels appropriate sample labels 9. Samples are: in good condition have air bubbles 10. Were any anomalies identified in sample receipt? Yes [] No [] 11. Description of anomalies (include sample numbers): Mathematical Content of the cont	4.	Cooler temperature 2°C	.		·				
7. Sample holding times exceeded: 8. Samples have: tape custody seals appropriate sample labels 9. Samples are: in good condition broken have air bubbles 10. Were any anomalies identified in sample receipt? Yes [] No [] 11. Description of anomalies (include sample numbers): On: 44.72.44.	5.	Vermiculite/packing materials is		Wet	[]	Dry	[·]		
8. Samples have: tape hazard labels custody seals appropriate sample labels 9. Samples are: in good condition leaking broken have air bubbles 10. Were any anomalies identified in sample receipt? Yes [] No [] 11. Description of anomalies (include sample numbers): Sample Custodian: On: 44 /2-54	6.	Number of samples in shipping contain	iner:	.,	* **			· · · · · · · · · · · · · · · · · · ·	
gustody sealsappropriate sample labels 9. Samples are:in good conditionleakinghave air bubbles 10. Were any anomalies identified in sample receipt? Yes [] No [] 11. Description of anomalies (include sample numbers):	7.	Sample holding times exceeded:	Yes	[.]	No	[]			
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Lockheed Analytical Laboratory SAMPLE SUMMARY REPORT (su02) Bechtel Hanford, Inc. * Richland, WA

Client	LAL	SDG	Method		
Sample Number	Sample Number	Number Matrix			
BOD931 ~	L4255-1	Water	SCREENING —		
	L4255-2	Water	218.2 CHROMIUM —		
	L4255-3	Water	7196 CHROMIUM (V		
REPORT TYPE _	L4255-4	Water	EDD - DISK DEL:		
	L4255-4	Water	INORG TYPE 2 RPT		

Lockheed Analytical Laboratory SAMPLE SUMMARY REPORT (su02) Bechtel Hanford, Inc. * Richland, WA

The same same same and the same	LAL Sample Number	SDG Number Matrix	
BOD931 ~	L4255-1	Water	SCREENING —
	L4255-2	Water	218.2 CHROMIUM —
	L4255-3	Water	7196 CHROMIUM (VI
REPORT TYPE _	L4255-4	Water	EDD - DISK DEL:
	L4255-4	Water	INORG TYPE 2 RPT

LOCKHEED ANALYTICAL SERVICES

Sample Results

Client Sample ID: BOD931	Date Collected: 11-APR-95	
Matrix: Water	Date Received: 13-APR-95	
Percent Solids: N/A		

Constituent	Units	Method	Result	Project Reporting Limit	Data Qualifier(s)	Date Analyzed	LAS Batch ID	LAS Sampte ID
Chromium, hexavalent	mg/L	7196	0.0063	0.020	НВ	14-APR-95	21699	L4255-3

TOTAL METALS RESULTS

Client Sample ID: BOD931	Date Collected: 04-11-95	Matrix: water
LAL Batch ID(s): 413 bh	Date Received: 04-13-95	

Constituents	Method	Concentration (mg/L)	IDL (mg/L)	RDL (mg/L)	Data Qualifier(s)	Date Analyzed	LAL ID
Chromium	218.2	. 0.010	0.002	0.010	SN	04-24-95	L4255-2

Comments:		 			